

Remarks/Arguments

Claims 1-5 and 7-18 are pending. Claims 1, 5, 7, 11, 13, and 16 have been amended. Claim 6 has been canceled. Claims 5 and 11 have been rewritten in independent form as suggested by the Examiner and are deemed to be in condition for allowance. Reconsideration of this application in light of the above amendments and the following remarks is requested.

Rejections under 35 U.S.C. § 103(a)

Claims 1-4, 6-10, and 12-18 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,658,565 to Gupta et al. ("Gupta") in view of U.S. Patent No. 6,449,657 to Stanbach et al. ("Stanbach").

A. Combination of references fails to teach or suggest all claim limitations

As provided in MPEP § 2143, "[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, under MPEP § 2142, "[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." It is submitted that the Office action does not factually support a prima facie case of obviousness based on Gupta and Stanbach for the following reasons.

Claims 1-4

Claim 1, as amended, recites in part queuing the hash bucket to a processor so that the workload of all the processors are balanced, wherein the queuing includes applying a queuing model to packets in the hash bucket to prevent packets from a particular connection from utilizing an excessive amount of the processor's time.

The Office Action relies on Gupta (col. 2, lines 33-37; col. 6, lines 11-19) to render this element obvious (with respect to claim 6). However, the cited text of Gupta states that:

"a single switch may be unable to keep up with the traffic of such an attack. Therefore, the present invention is directed to alleviating the processing-intensive burden placed on a switch of a computer internetwork." (col. 2, lines 33-37)

"Essentially, this third hash function technique represents a multi-level approach wherein the load is initially divided by a predetermined criterion obtained as a result of decoding predetermined address bits (first level) and then, if it is apparent over a period of time that this initial apportionment is ineffective, a second level is invoked to balance the load based on such empirical data. For example as traffic characteristics of packet transmission over the network change, distribution of the load may also change." (col. 6, lines 11-19)

Neither of the cited paragraphs teach or suggest "wherein the queuing includes applying a queuing model to packets in the hash bucket to prevent packets from a particular connection from utilizing an excessive amount of the processor's time," as is recited in claim 1. As the first paragraph (col. 2, lines 33-37) states, it is directed to "alleviating the processing-intensive burden placed on a switch of a computer internetwork." The second paragraph (col. 6, lines 11-19) is directed to "even distribution of the load or, alternatively, intentional uneven distributions thereof, if necessary, among the switches." (col. 6, lines 8-10).

Accordingly, the combination of Gupta and Stanbach fails to teach or suggest all the claim limitations of claim 1 as required by MPEP § 2143, and claim 1 is allowable over the cited references. Claims 2-4 depend from and further limit claim 1 and are therefore allowable for at least the same reason as claim 1.

Claims 7-10 and 12

Claim 7, as amended, recites in part means for calculating a number of hash buckets to assign to a processor based on a ratio of an imbalance index of the processor and a total imbalance index, wherein the processor's imbalance index is based on a utilization rate of the processor and the system, and wherein the total imbalance index is based on the imbalance index of each processor.

Applicant can find no teaching or suggestion in the cited references of the above recited element of claim 7, and submits that claim 7 is allowable over the cited art. Claims 8-10 and 12 depend from and further limit claim 7 and are allowable for at least the same reason as claim 7.

Claims 13-15

Claim 13 recites, in part, assigning one or more hash buckets to a processor timer thread based on a workload thereof so that the processor only processes the connection mapped to the assigned hash buckets.

As admitted in the Office Action, Gupta fails to teach or suggest this element and the Office action relies on Stanbach (Figs. 3 and 11; and col. 6, line 44 – col. 7, line 12) to render this element obvious. However the cited text is directed towards "a multi-threaded name server" that "spawns a new child thread (i.e., a request handler thread) to process each new resolution request." In contrast, the above recited element of claim 13 recites assigning one or more hash buckets to a processor timer thread, which is clearly not taught or suggested by the cited text. Accordingly, the combination of Gupta and Stanbach fails to teach or suggest each element of claim 13 as required by MPEP § 2143, and claim 13 is allowable over the cited reference. Claims 14 and 15 depend from and further limit claim 13 and are allowable for at least the same reason as claim 13.

Claims 16-18

Claim 16 recites similar elements to those of claim 13. Accordingly, claim 16 is allowable for at least the same reasons as claim 13. Claims 17 and 18 depend from and further limit claim 16 and are allowable for at least the same reason as claim 16.

B. There is no motivation to combine the references

Furthermore, even if the combination of Gupta and Stanbach taught or suggested each element of each claim (which it clearly does not, as described above), the case law is clear that there must be evidence that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. It is also clear that a rejection cannot be predicated on the mere identification of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Ecolochem Inc. v. Southern California Edison*, 56 USPQ2d 1065, 1076 (Fed. Cir. 2000) (emphasis added).

The Office Action states that "[i]t would have been obvious to a person of skill in the art at the time the invention was made to combine the teaching of Gupta and Stanbach because Stanbach's teaching of multiple connections would allow to reduce the processing time so that the system can be performed in a more efficient manner (claims 1 and 7) or because Stanbach's teaching of timer threads would allow multiple connections to be processed which increases system performance and processing time (claims 13 and 16). Applicant submits that such a general statement does not meet the requirement of evidence or particular findings, and that the combination is improper for at least this reason.

Conclusion

Accordingly, Applicant respectfully submits that independent claims 1, 5, 7, 11, 13, and 16 are in condition for allowance. Dependent claims 2-4, 8-10, 12, 14, 15, 17, and 18 depend from and further limit their respective independent claims and are also in condition for allowance. Should the Examiner have any further comments, the Examiner is invited to contact the Applicant at the below listed number.

Respectfully submitted,

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